Current EPA Activities Related to Access Strategy Recommendations

The following document is a listing of many major current and planned EPA activities and efforts that address recommendations in the EPA Information Access Strategy. These efforts contribute to the broad goal of improving information access and facilitating the ability of EPA audiences to find, understand and use environmental information. Some of these activities are specific outreach efforts to improve information access for the public and stakeholder groups, while others are internal efforts that improve EPA systems in order to improve overall information access to EPA audiences. Where possible, Web links to public activities are provided.

Recommendation 1: Enable People to Find Environmental Data and Information at EPA and Other Federal Agencies

Improve the Tools Available to Search for EPA's Digital Information Resources

Nearly all EPA offices manage information resources of value to EPA staff and audiences, and significant progress on search depends on taking an enterprise approach for managing search tools. While there are a number of initiatives underway throughout EPA to improve search, many are limited in scope to individual offices, data systems and Agency services.

- The EPA-wide Web Content Management System (CMS) is being implemented to improve the management and cataloguing of EPA's information. Web CMS is software for the creation, management, organization, and publication of Web content, which will result in improved Web site search and navigation functions. Migration by EPA offices to this new tool is underway and should be completed by 2010. The Office of Water was an early adopter in the Agency for Web CMS, and will eventually coordinate their system with the Agency-wide Web CMS.
- EPA Office of Environmental Information and the EPA Chief Information Officer direct EPA staff to remove redundant and outdated content from its Web site, which will result in improved search results and the elimination of broken links.
- EPA's Web taxonomy, which is a set of standard terms to help organize and catalogue information, is being used to tag the topics of EPA Web pages, which will further improve search of EPA's Web site.
- EPA is developing and implementing a Web Information Architecture (IA) that describes how EPA's Web documents will be organized and labeled so they can be easily found on the EPA Web site. The Web IA is essentially a "card catalog" for the content on the EPA Web site.
- EPA has placed the A-Z Index and Quick Finder on its home page, which uses navigational tools to help Web site visitors find commonly sought information.

Strengthen EPA's Network of Information Specialists

EPA's networks of information specialists are valuable local providers of information, and by offering support for them to connect nationally within their network and other networks, EPA can improve the support they give EPA audiences. EPA's information network specialists are significant resources for providing information to the public, but an increasing demand for more technical information necessitates greater assistance to these networks.

- EPA's libraries provide environmental and related policy and technical information to EPA staff, researchers and the public. There are regional and repository libraries throughout the United States, as well as specialty and research libraries. In addition, library services such as the EPA Online Library System allow the public and EPA staff to search across all materials at EPA libraries, using the Internet.
- The Office of Public Affairs at EPA Headquarters and at the ten Regional Offices has staff that communicate with the media and other interested stakeholders on current environmental issues. These staff can connect audiences with experts within EPA or can answer questions about a current event for reporters or concerned citizens. In addition, the Office of Public Affairs provides RSS feeds and email listservs, which give regular updates on customized topics to subscribers.
- Toxic Release Inventory (TRI) Regional Coordinators are EPA staff that provide regulated facilities with training and assistance in meeting TRI reporting requirements, and help audiences find and understand the TRI data through the TRI Explorer. These Regional Coordinators are the information specialists that communities will often turn to first when concerned about potential chemical releases in their area.

Explore Search Partnerships with Other Federal Agencies

Incremental improvements in navigation tools and search functionality will allow EPA to move into increasingly sophisticated search partnerships with other Federal agencies. Continuing improvements on EPA search and a coordinated effort to develop search partners are needed in order to allow the public to easily gather environmental information from EPA and its co-regulators.

- USA.gov is a search portal that allows search across many governmental agencies, including EPA. Science.gov is a specialized sub-portal of USA.gov that is specifically focused on science, including environmental science. EPA is a participating partner in Science.gov, with the EPA Office of Research and Development and Office of Environmental Information providing administrative and technical support to this effort. These portals help people search across multiple Federal agencies, although not all content within those agency Web sites may be tagged for USA.gov search.
- The on-going work that EPA is doing with its Web taxonomy and with Web CMS will help EPA link its information to other Federal data to facilitate more comprehensive search in the future.
- While Program and Regional Offices often link to other Federal agencies' Web sites to refer to specific information and programs, it is not currently a coordinated Agency effort.

Recommendation 2: Improve People's Understanding of EPA Data and Information to Promote Appropriate Use

Improve the Transparency of EPA Data and Information by Providing Better Documentation

With an increasing amount of information available to EPA audiences, documentation of data is more important than ever because it allows users to understand the quality and context around data. EPA is working to develop stronger and more consistent documentation of its information, building upon the existing data standards and the expansive efforts underway.

- EPA's Science Inventory is a metadata system about EPA's science activities and products, such as datasets, models, and publications. The Science Inventory helps people learn about ongoing research and projects, and find publications on environmental topics.
- EPA maintains a System of Registries (SoR) to support the Agency's data standards program and metadata needs. The SoR provides a gateway and search capability to several EPA registries and repositories. The registries provide identification information for data elements, data standards, substances (chemical, biological and physical properties), facilities, regulations, and datasets that the Agency uses in its core business. For example, the Substance Registry System is EPA's central biological and chemical information management system and can cross-reference substances across EPA's databases for additional information.
- EPA's Data Standards Program requires EPA systems to apply 25 standards to data to improve the integration of data applications, products and systems. The program also promotes the efficient sharing of environmental information among EPA offices, state governments, tribal governments, and other information partners.
- EPA's Quality System includes documented policies and procedures to ensure that the quality of environmental data is appropriate for its intended use. Currently, EPA is implementing a new EPA Quality Policy that addresses the quality of all EPA products and services that are distributed and disseminated to the public.

Support Front-Line Providers of Information

Information intermediaries, the front-line providers of information, are media representatives, librarians, nongovernmental organizations, and others that convey EPA's information to a broader audience. EPA's audiences often prefer to receive information from local and familiar sources, and turn to these intermediaries first for information. Identifying these intermediaries and their needs is vital to improving access to environmental information. While actively engaging intermediaries is not currently a standard practice, the following examples show how some EPA offices approach working with EPA's intermediaries.

- Specific EPA programs support information intermediaries' ability to deliver information about environmental health.
    - AirNow is a collaboration between EPA, other Federal agencies, state, tribal and local governments and others to provide air quality data to hundreds of media outlets, which in turn provide the information to their audiences.
    - The EPA Office of Water administers the Fish Consumption Advisories program, which physicians can use to help inform their patients about risks of mercury and other chemical exposure from fish. This program also collaborates with state and local officials to ensure that the information is translated into different languages and distributed to a broader audience.
- EPA's Office of Public Affairs provides relevant and important EPA information to the news media and others, who in turn provide the information to the public. The Office of Public Affairs provides updates through RSS feeds and email listservs on topics of selected interest by subscribers, which help these front-line providers to gather update from EPA more efficiently and effectively. The Office of Public Affairs will continue to expand its use of RSS feeds to keep the public up-to-date on EPA activities and environmental topics.
- EPA librarians serve as intermediaries to the public and to other information intermediaries, connecting EPA's audiences to internal experts who can help them.
- EPA Program Offices offer many environmental education programs, which provide educational materials to teachers on various environmental topics, who can then use those materials in their classrooms.

Recommendation 3: Organize EPA information and data into formats that promote better understanding and use

Develop Introductory Materials on Topics and Issues for General Use

Visitors to EPA's Web site are often looking for general summaries about particular topics. They look for summaries to provide a basic level of understanding and could lead people to more in-depth information. While EPA provides a number of introductory materials on its Web site, there is no consistent effort to ensure that EPA is providing summaries of the topics of most interest to EPA Web site visitors.

- EPA Program Offices have developed many information summaries, as well as educational materials on the topics that are most important and popular within their offices. These summaries and materials are often broad enough to be used both in the classroom and for general consumers interested in different environmental topics and impacts.
- EPA has developed an A-Z Index and Quick Finder, both of which contain topic headings to aid users in finding commonly sought information from EPA. These tools serve as a gateway for audiences to find general summaries on the information they want and then explore more technical information. This Quick Finder is available on the home page of EPA's Web site.

- EPA has a number of information products that take a wealth of technical information and condense it so that it can be easily understood and used by a broad audience.
    - EPA's *2008 Report on the Environment: Highlights Document* provides one-page descriptions of 25 environmental topics in an easy-to-read format. The electronic Report on the Environment (eROE) presents this document and provides links to more technical information.
    - Twice a year, EPA releases its Regulatory Agenda, briefly summarizing all the regulations EPA has recently been working on or has finished, and provides references to more detailed information on these rules and contact information for EPA staff working on these issues.
    - EPA's Information Product Bulletin is a quarterly publication that briefly summarizes and links to upcoming EPA publications and alerts stakeholders and the public about opportunities to provide comment on EPA information products.
    - The EPA Annual Performance and Accountability Reports describe to the public and to legislators the Agency's environmental, programmatic and financial performance over the preceding fiscal year. With the 2007 Annual Performance and Accountability Report, EPA also began releasing a Highlights Document, which provides a summary of the more comprehensive report's findings.

Organize EPA Data for Analytical Uses

EPA has, for the past decade, worked to add a variety of key identifiers to its major databases, including facility identification, location and chemical information. These identifiers are a form of metadata intended to allow data users to organize information for analytical uses. Most at EPA agree on the importance of these key identifiers and the need for strong metadata organization and data integration to support information access and use. Some progress has been made across these different key identifiers, including the below examples, and continued coordinated work in these areas can help further improve appropriate use and understanding of information.

- EPA's National Geospatial Program has developed the GeoData Gateway, which is a collaborative tool used in the EPA geographic community to simplify and standardize the development of geospatial metadata across EPA. EPA has a very large inventory of geospatial information, and developing and standardizing the metadata is important for the analysis and use of the information.
- EPA provides tools that let its audiences perform their own analyses and interact with the context of the information, which facilitates understanding and use of the information.
    - EnviroFacts provides access to several EPA datasets and allows users of the tool to map specific environmental information.
    - The TRI Explorer allows users to interact with the TRI database and search for specific releases of chemicals, organized by date and location and other facility-specific metadata.
    - The Risk-Screening Environmental Indicators analyzes risk factors and puts the information from the TRI database into a chronic health context, and allows users to examine trends and understand the preliminary impacts of specific emissions.

- The Substance Registry System is EPA's central system for chemical and biological information management and it identifies and links to other EPA databases for information on those substances. This registry organizes disparate substance information in one place, facilitating the ability for an audience to find the information they need and analyze it.

Strengthen Partnerships with Federal Data Collectors

Efforts are currently underway to better understand audience information needs in order to help Federal, state, and local agencies better serve their audiences. EPA has formed valuable partnerships with a wide array of collectors, and some work has been done to develop common integrating tools between these agencies. EPA continues to work toward a more complete understanding of how its information audiences seek to integrate information from different Federal agencies.

- The National Hydrography Database is a partnership with EPA, the US Geological Survey and states to provide a comprehensive set of data about surface water features for lakes, ponds, streams, rivers, springs and wells.
- The Global Earth Observation System of Systems (GEOSS) program is a partnership between EPA, USGS, National Oceanographic and Atmospheric Administration, National Aeronautical and Space Administration and other agencies to develop a comprehensive, coordinated and sustained Earth Observation System to collect and disseminate improved data, information, and models to stakeholders and decision makers.
- The Central Data Exchange, the point of entry into the Exchange Network, is an Internet-based system used by state, tribal, and territorial partners to securely share environmental and health information with one another and EPA.
- The Facility Registry System is a partnership with EPA, state governments and tribal governments to provide a consistent inventory of facilities that are subject to environmental regulation across the country.

Recommendation 4: Use New Web Technologies to Empower People to Find, Understand and Use Environmental Information and Data

New and emerging Web technologies emphasize the ability of audiences to customize, interact, and collaborate on environmental datasets and information. EPA continues to learn from its past successes and challenges as it develops a policy framework for encouraging increased use of new Web technologies. As the following examples show, EPA's offices are working increasingly with new Web technologies for data publishing, pro-active delivery, and data collaboration, and these efforts are expected to increase in coming years with new policies and opportunities.

Push Technologies

- EPA maintains a variety of RSS feeds and email listservs that push information to audiences that have signed up to receive these notifications. For example, EPA automatically sends new press releases to those who have requested to receive them, which allows interested audiences to stay up-to-date on current issues without having to regularly visit the EPA Web site. RSS feeds can be customized so that only particular environmental topics are pushed to a user of the feeds, and EPA will be expanding the use of RSS feeds in the future.
- Enviroflash is a service that provides audiences with information about air quality and allows users to sign up to receive automatic air quality alerts for their area. This customized information delivery keeps audiences aware of the information that is most important to them.
- The Central Data Exchange (CDX) and the Exchange Network provide customized alerts to users when specific datasets are updated. These regular updates allow audiences of these programs to stay current with the best information without having to manually monitor their desired databases.

Web Publishing

- Many Central Data Exchange and Exchange Network projects publish data that can be securely accessed and integrated by partners using different tools. For example, the Water Quality Exchange allows partners to share ambient water quality information with EPA, which expands the data that both EPA and its partners are able to access to analyze water quality conditions.
- The Global Earth Observation System of Systems (GEOSS) program, of which EPA is a lead partner, is an emerging framework designed to provide global coordination between many agencies to publish earth observation data for use by other stakeholders. Partners will be able to access data, integrate it with their own information and fill data gaps for other partners, and this dataset will help
- EPA plans to pilot the publishing of TRI datasets, such as the annual Public Data Release, as a Web service so interested users can manipulate data in more ways and interact it with other information.
- AirNow, an air quality information collaboration between EPA and other Federal partners, publishes their data in formats that can be used in 3-D mapping formats, such as Google Earth, to better visualize air quality information. In the future, AirNow will be publishing in more formats, which could allow users to overlay information from AirNow with other data.

Collaborative Technologies

- EPA staff are experimenting with Wiki technologies, which allow for simple collaboration on documents and information between many users. Wikis at EPA are being used as an electronic platform for informal exchanges of information and expertise between knowledgeable environmental professions and members of the interested public.
- EPA's Internal Web Portal provides collaborative spaces expressly designed to support improved access of information for EPA staff and those who are directly collaborating with EPA, such as the

Environmental Science Connector, which is a collaborative space made up of many EPA scientists and external collaborators to develop and work on projects.

- Greenversations is a blog that gives EPA audiences an opportunity to interact with EPA staff and management. Various EPA staff members create blog entries about different environmental topics and current issues, and readers are able to comment on these entries.